

**State Board of Education
January 20, 2009
Item L**

TEAM: Standards and Assessment

DISCUSSION TOPIC: What is meant by a “growth model” for school accountability and what are the key issues to consider as decisions are made about the inclusion/incorporation of any “growth model” in Vermont’s school accountability system?

ALIGNMENT WITH GOALS:

Goal I - Support high-quality, innovative instruction to improve student achievement

Objective B - A statewide accountability system identifying student needs related to achievement

STATUTORY AUTHORITY: 16 V.S.A. § 165 (a) and (b)

BACKGROUND INFORMATION:

Vermont currently determines Adequate Yearly Progress (AYP) of schools using an index which assigns points based on the achievement level of each student who takes the state assessment in any year. This is called a “status model” because AYP is determined by the annual achievement of successive groups of students who test in a particular year. Unlike a status model which considers only whether students are proficient or not proficient, Vermont’s index does credit schools with increased points for students who are partially proficient.

NCLBA has permitted states to include “growth”, a consideration of student progress, in their AYP determinations but under specific and limiting criteria. For that reason, Vermont has not yet developed or applied to the US DOE for a revision to our accountability system. Dependent on new opportunities and flexibilities that may come with the reauthorization of NCLBA, Department staff working with external consultation will review and make recommendations to the SBE on how we might modify our accountability system to increase the accuracy, equity and fairness of accountability decisions.

PURPOSE OF DISCUSSION:

The purpose of the discussion is to provide the State Board with a preliminary overview of the status and growth accountability models and pose some key questions that will need to be contemplated in deciding whether “growth” should be incorporated in revisions to the accountability system.

COST IMPLICATIONS:

Any revision of the **current** accountability system will demand significant department capacity as well as increased demand for external contractor/expert consultation.

STAFF AVAILABLE: Armando Vilaseca, Gail Taylor, Michael Hock

Critical Question: What is meant by a “growth model” for accountability and why is Vermont not currently using one?

Background: The **No Child Left Behind Act of 2001 (NCLBA)** requires states to measure school accountability using the percentage of students scoring at or above the proficient level on statewide assessments in mathematics and reading. Each year AYP decisions are made based on targets that move all schools and all students on the same path to proficiency by the 2013-2014 school year. This accountability system is referred to as a *status model* because it evaluates school performance at a single point in time on successive cohorts (groups) of students.

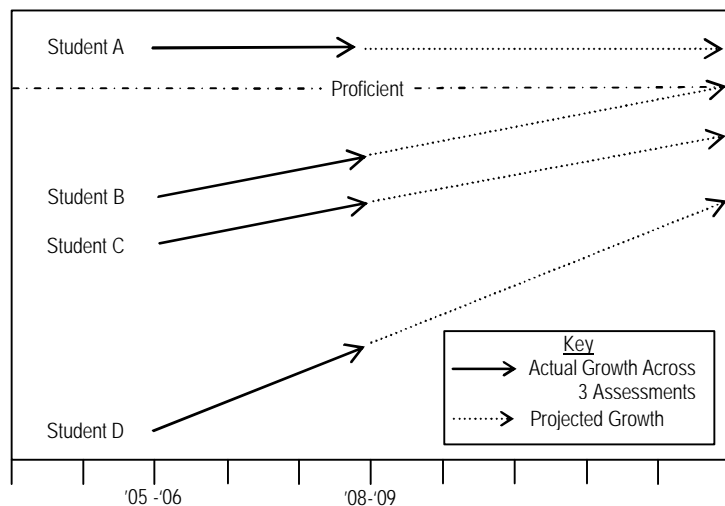
Initially, the United States Department of Education (USED) interpreted NCLBA as requiring the exclusive use of status models. The other accountability model used by some states was based on longitudinal models of student performance which credited schools with the progress that students made over time. Schools received credit for student growth, even if students did not cross a proficiency line. These various models have become known as “growth models.”

Prior to NCLBA, Vermont’s accountability system actually measured schools on two indexes, a status index and a change index. The status index measured all schools against a common target and the change index measured each school against an individual target. This system was changed to meet the AYP expectations of NCLBA in 2003.

In 2005 USED announced a pilot project that would grant waivers for up to 10 states to develop and gather data on accountability systems based on longitudinal data. However, by 2005, Vermont had changed assessments to meet other NCLBA requirements and so we had only one year of results from the NECAP program and therefore could not qualify for the growth pilot. The Department did submit a letter of interest to USED, asking to be considered for any future growth model projects.

From the submissions that were approved for the growth model pilot it became clear that USED was not open to replacing status models with “true” longitudinal models. The two projects that were selected (Tennessee and North Carolina) proposed hybrid status models that added in “students on target to be proficient” with proficient students when calculating AYP. Figure 1 provides an example of how the hybrid models work and also shows why many proponents of growth models have been discouraged by the narrow approval parameters instituted by USED.

Figure 1: Growth for NCLB Accountability



Central to the “approvability” of states’ proposals was how they answered the question “how much growth is enough?” The only answers accepted by USED were those that satisfied the “100% proficient by 2013-14” mandate. Looking to the 2008-09 school year in Figure 1, under the approved models a school would receive credit for Students A and B because Student A scored in the proficient range and Student B’s growth across 3 assessments shows a trajectory that predicts proficiency for the student by 2014. The school would not receive credit for Students C and D because the students were not currently proficient,

nor were they on target to be proficient by 2013-14. Students A, C and D exemplify the concerns raised by growth proponents about the models approved by USED. Student A is credited as a success despite showing no growth (in fact, negative growth would be acceptable as long as the student continued to score in the proficient range). The school would receive no credit for Student C even though the student's growth matched that of Student B, nor would the school receive credit for Student D who showed the greatest gains of all.

After a year of implementation both Tennessee and North Carolina reported that the addition of a growth factor had changed accountability decisions for less than 1% of their schools. In North Carolina, where growth models have been in use longer than in any other state, only 9 of 2,397 schools met 2007 AYP targets because of the addition of "on target" students. In addition, USED required states to change other components of their accountability systems as a condition for pilot project approval (e.g., reduced minimum N size, elimination of confidence intervals). Those elements combined with the fact that Vermont already had an approved Index System which DID allow us to credit schools with more "points" for moving students toward the proficient line meant we had more to lose than to gain by applying for a growth model. For these reasons, when USED announced another round of growth pilots in 2006, Commissioner Cate decided Vermont would not participate.

KEY QUESTIONS: If changes to NCLBA allow for more flexibility to implement growth models, we will need to carefully consider a new set of issues and challenges:

- How should standards be set? How much growth by how many students would be necessary to document that a school had made adequate yearly progress?
- How would states include ALL students in accountability – another key NCLBA requirement - when students at lower grade levels would have only one or two years of assessment results, and high school students would have a three year gap between assessments?
- Should schools be held accountable for growth for all students, or only for students who score below the proficient level? Should a proficient student who demonstrates negative growth be treated as a credit or a debit?
- The concept of measuring academic growth requires consideration of a variety of psychometric approaches for measuring growth that vary in construct, complexity and required resources. Which approach is right for Vermont?
- In Vermont, and in other states that use index accountability systems that includes a variant of growth, is there sufficient "value added" by growth models to warrant a fundamental change in Vermont's accountability system? If necessary, would we abandon our index system in order to use a growth model

Overarching all of these questions are the fundamental notions of purpose and intent. What would we hope to accomplish by adopting a growth model? What issues or concerns with the current accountability system might be resolved? There is a common assumption that growth models will increase the number of schools making adequate yearly progress. Results from the states that participated in the USED growth model pilots do not support this assumption. The same schools might be identified, but for different reasons. The same number of schools might be identified, but they might be different schools. The value of growth models relates directly to how those models can impact the accuracy, equity and fairness of accountability decisions. Whether or not they are appropriate for Vermont should be judged in those terms.